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ABSTRACT

This report examines the learning styles of Caucasian and African-American students. While research supports the claim that low academic achievement is prevalent in the minority community, there is no consensus regarding the causes. There are two schools of thought that involve (1) the cognitive deficit or genetic cause, and (2) the cultural deprivation theory related to cultural poverty. Research shows that middle-class Caucasian students perform better in school than middle-class African Americans. It also shows that students who are field independent, which is the modality of teachers, receive higher grades. Most African-American students are field dependent. Field-independent learning reflects academic curricula, academic achievement, and testing. The evidence shows that Blacks are primarily auditory and tactile rather than visual and that, unfortunately, enormous amounts of information are transferred visually in American society. The prime processing mode for Blacks is kinesthetic, which is substantiated by African Americans' high motoric capability. Finally, the paper suggests that because Blacks are extraverted, preferring action and personal involvement, black students need affective material, warm and supportive teachers free of racism, and a proactive learning environment to experience scholastic success. An appendix includes information about Blacks' relations to educational materials, certifying knowledge, and turn taking. (Contains 11 references.) (GLR)

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Factors That Contribute to Learning Difference Among African American and Caucasian Students.

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ABSTRACT

Research has indicated, cultural differences reflect distinct cognitive styles among African Americans and caucasian students. Concepts such as cognition and culture that permeate the African American and caucasian communities will set the foundation for examing the distinct learning styles. Researcher will examine the academic achievement of caucasian and African American students and determine if a relationship exist between race and academic achievement, or learning styles.

DISCUSSION

Cognition represents the act of knowing. Within the act lie processes of perception, memory, mental elaboration and reasoning. Although the processes are basically the same for all individuals, differences are noted in the way the processes are used (Shade 3). On the contrary, culture is beliefs, values, politics, customs, rules, regulations, and etc. Culture determine or influence diet, apparel, outside activities, and your moral attitude. Culture represents you total way of life (Goode 63). This research rest upon the premise, African Americans perceive the world differently than caucasian, which include developing unique congnitive strategies. The purpose of this research is to examine learning styles of caucasian and African American students.

Low academic achievement among African Americans, Mexican Americans, and Puerto Rican Americans is a national enigma that warrants urgent action. This monumental problem is difficult to diagnose, because educational researchers and practitioners dissent, regarding the discrepancies in academic achievement between mainstream caucasians and African-Americans. Regardless of race, indigent students perform

poorly in school. However; researchers concur, a higher percentage of African American children reside in poor families. Studies indicate, when socioeconomic status is controlled, discrepancies still exist in academic achievement. (Turner 3).

Two ideologies articulate why low achievement permeate the African American community. The cognitive deficit theory purport, blacks are deprived and attribute inferior genetic inheritance or environmental factors. In 1966, Patrick Moynihan concluded that Black families neglected to instill positive orientations in their children toward achievement, due to the crumbling family structure. Moynihan failed to acknowledge, prior to 1950, 75% of Black children resided in nuclear families. (Hacker 68). The second theory suggest African American language and culture is different. Black have their own culture and childrearing practices, creating distinctively Black instrumental competencies (Turner 5).

These differences are attributed to poverty and coping with the Black ghetto environment. The cognitive deficit in indigent children may be a result of attitudes, general approaches to tasks, and psychological defenses that inhibit learning. Educators and practitioners attempted to culturally enrich disfranchised Black children, by introducing a swarm of remediation programs in the 1960's, such as Head Start, Upward Bound, Higher Horizons, High Potential, and Parent-Child Centers. Cultural deprivation theorists faced harsh criticism when they argued, low income minority students and low academic achievement was attributed to socialized cultural poverty. Researchers who rejected this hypothesis

contend, cognitive learning and motivational styles of African Americans differ from caucasians thereby impeding the learning process.

Since the cognitive deficit and cultural deprivation theories are questionable, a direct relationship may exist between racial social class and academic achievement. In his book, The Declining Significance of Race , W. J. Wilson argued, the importance of race has declined and class is the major factor. M. Gordon, the author of Assimiliation in American Life hypothesized, excluding cultural behavior, differences of social class are more important and decisive than ethnicity. If one concurs with Wilson or Gordon, middle-class Black and Caucasian students should possess similar learning styles, while middle and lower class Blacks should differ significantly (Banks 452). If this hypothesis stands to reason, no difference should exist between middle class Blacks and Caucasian students academic achievement.

Evidence indicates the socialization and intellectual home environment of different racial groups vary, when they are members of the same social class. The home environment rating of 50 Black and Caucasian middle class ninth grade girls, i.e. Otis Lennon Mental Ability Test, and the Metropolital Achievement Test were compared. Scores reveal the Caucasian middle class environment showed a significantly higher level of intellectuality than African American families. Researchers believe cultural differences in the home also account for test scores. Research has suggested when Black children are adopted by

Caucasian middle class parents, their IQ scores increase 13.5 points higher than Black children adopted by middle class Black parents (458).

Drawing a relationship between academic achievement and culture is an arduous task. The above studies create problems in theory construction and generalizations. The majority of middle class Caucasian families have middle class relatives, friends, and send their children to middle class schools. On the contrary, middle class African Americans have working or lower class relatives or friends, and reside in mixed class neighborhoods . Blacks seldom sever ties with their extended family who play a role in socializing their children. Many African Americans are first generation middle class, but retain working or lower class values and culture. Caucasians have been culturally middle class for generations and acquiesced to values, culture and mentality of middle class life. Therefore, social class is not a behavioral determinant, but a statement of probability that a behavior is likely to occur (458).

Since no relationship exist between academic achievement and social class, is culture superseding? Children examine the world through perception, memory, and learning to handle various ideas, images and concepts. Although commonalities exist among ethnic groups, individual and group differences persist (Shade 225). Methods of thinking, perception, memorization, are inseparably bound to patterns of activity, communication, and social relations of the group's culture. Four ethnic groups were examined using differentcognitive processes, such as memory, concept formation, numerical formation memory, and spatial relationships.

Results showed regardless of socioeconomic status, distinct patterns emerged. African Americans were high on verbal tasks and low on space conceptualization tasks. A similar study using the Geometric Figures Task, Incomplete Man and Verbal Fluency Task, showed ethnic group patterns in performance and cognitive growth. Rather than review these differences as ethnic variations in native ability, scholars identify these as variations in cognitive styles. It would be rash to attribute specific cognitive styles to African Americans, however racial differences exist in cognitive constructs.

Now that we have dissected the theories behind African Americans academic achievement, let's examine how information is transferred. Most information is transmitted visually. Instruments which judge individuals such as Raven's Progressive Matrices, the Bender-Gestalt Test, the Thematic Apperception Test, and the performance tasks of intelligence tests are predominantly and exclusively visual information processing tasks. It's a grievous error to assume all individuals possess similar modality pereferences. Individuals determine which modality they prefer to receive information, and that modality may not be vision (Shade 7).

Supporters of the cultural differences hypothesis are influenced by the cognitive style concept which postulates, students are either field dependent or independent learners. The latter prefer to work independently; they are task oriented and inattentive to their social

environment. Field dependent learners enjoy working with others to achieve a common goal, and sensitive individual feelings. Teachers assign field independent students higher grades because of their field independent teaching style. On the contrary, African American students are field dependent, as opposed to Causain students who are field independent (229).

Successful students display the following characteristics: task rather than people oriented; (2) the ability to organize abstract ideas into a unified whole; (3) prolonged attention span; (4) a reflective rather than impulsive response style in problem solving, and analytical thinking style. These requirements reflect curricula questions, solutions desired on achievement tests, and promoted by current teaching methods (232). Researchers who are influenced by field independent and dependent learners purport, the theory of Analytic style is field independent, and Relational is field dependent. R. H. Cohen found these styles evolve from families and group socialization that periodically perform tasks in unison. This method socialize students as relational learners. Formal styles of group organization are associated with the analytic style of learning (Banks 459).

How would an analytical person function on a relational task?

"If this person were asked to learn an African Dance, the analytical person is very likely to draw feet on the floor dissect the dance down into steps, and learn the dance piecemeal. It is also likely the analytical person will establish a standard of performance which becomes right or wrong. On the contrary, if the relational person is

given the same task, a comparable translation will take place. Details are likely to be blurred, standards faintly adhered to or the dance itself may be modifield with no real concern for right or wrong so much as fit or "harmony". An example is "The Wiz", a Broadway who that is a Black version of the Anglo American story, "The Wizard of Oz" (Turner 4).

Not only are African Americans field dependent-relational learners, research focusing on cognitive style, studied children of two subcultures in the United States. Boys from Orthodox Jewish families were compared to a group of Anglo Saxon, Protestant boys. The Orthodox family is matriarchal, with a non-participant father in childrearing. The researcher's hypothesis was correct in predicting that Jewish boys would score in a field dependent direction on cognitive style tests. As alluded earlier, field independent are subcultures characterized by formal organized family and friendship groups, while field dependent style is typical of children reared in cultures with shared group function (Ramirez 213).

A study conducted in Houston, Texas assessed the learning styles of Mexican, Caucasian, and African Americans. The value system of Mexican and African American families had common characteristics of shared-function groups. Their socialization practices were characterized by strict childrearing, respect for authority, close ties to "mom", a more formal relationship with "dad" and family loyality. On the contrary, Caucasian families shared characteristics of a formal organized group,

and peer relationships were dominant early in the child's life. Researchers hypothesize, Mexican and African American children would score field dependent.

Their results concluded, Mexican and African American students were field dependent. These results have implications for educational success. Intelligence tests and teachers are field independent. Teachers instruct in their own cognitive style and give lower grades to field dependent students. Therefore; educational institution are not cognizant with Mexican and African American cognitive style, academic failure will ensue (218). Field independent, and cognitive style is reflected in the curricula, test questions and teaching methods. A direct relationship exist between cognitive styles and academic success. There is a correlation favoring the analytical, field independent, conceptually abstract, and reflective students.

This trend is evident in the African American community. Blacks who are field independent perform better on I.Q. tests, problem-solving tasks, and excel in school. The relationship between cognitive style and academic achievement is positive in the reading area. Good readers, regardless of "race" lean toward field-independent perceptual style, while poor readers are field dependent. Studies also suggest, field-dependent students took longer to master a reading task than field independent students.

This point of view is supported by the reading skills of African Americans. Reading requires visual-auditory discrimination, and the ability to perceptually organize symbolic patterns and space. The child

who is successful in developing reading skills probably has a differentiated, analytical method of handling information - processing rather than global nonanalytic approach. This evidence may draw the conclusion, differences in academic achievement is attributed to field-dependent, nonanalytical categorizing information, and processing strategies used by African Americans. Because this style is absent in learning, racial differences would occur. Gender differences in the African community reported mixed results. Some studies suggest no difference, while others dissent.

While all modalities are active, individuals find some modalities more effective and efficient than others. This premise leads to the question: Which modalities are promising for African Americans? Charles Keil noted in his book Urban Blues, "The Black Community in its modes of perception and expression, its channels of communication are predominantly auditory and tactile rather than visual . . . the prominence of aural perception, oral expression and kinetic codes . . . sharply demarcate Black culture form the white world."

Although aural mode is paramount in the African American community, kinesthetic is the primary mode of information induction. This conclusion is supported by evidence in the field of motor learning. Evidence supports the hypothesis that Blacks possess high motoric capability due to their sensor-motor precocity. A 1972 study discovered that Black children were 50% better than Caucasian children in following rhythms. One might conclude that African-Americans are adept at gathering, using and analyzing kinesthetic information (Shade 8).

Schools reward the analytical approach to congnitive organization. Students who never developed these skills or function with different cognitive styles are poor achievers (Turner 5). Their failures are evident early and persist throughout their academic career. See appendix A, regarding success rates of analytical and relational learners. Education is based upon middle class values and culture, with an overall ideology and environment that reinforces the analytic style. Aspects of this style requires students to sit for extended periods of time, concentrating on impersonal learning stimuli, and value organized time. Relational learners are unlikely to be rewarded socially with grades, regardless of their native ability, depth of information or background experience. In fact, relational students will disrupt the analytical environment, be labeled deviant further stigmatizing and impeding academic achievement. (6)

Arguing from the premise, education is taught from a middle class perspective with Caucasian teachers, cultural differences will clash regarding communication. Unlike the Caucasian community, the African American community, (no mention of class was articulated) is high-keyed, animated, interpersonal, confrontational, and displaying characteristics of heated discussions. The middle class, Caucasian style is seen as lowkeyed, dispassionate, impersonal, non-challenging, showing detachment, quiet and without affect. Thomas Kochman, the author of Black and White Styles of Conflict articulate the following excerpts from his book: See appendix B.

Not only must Black students adjust to the analytical environment, teachers must be congnizant of cultural differences in communication.

Sarah Michaels conducted an ethnographical study of sharing time among Caucasian and African American urban 1st graders. Significant differences were unearthed regarding oral presentation styles. (The reader must take into consideration, Black students were from the lower socioeconomic stratum, while the Caucasian SES was not articulated.) Caucasian children use topic centered which concurred with the teacher's notion of appropriate sharing episode. In contrast, Black students used topic-chaining style, loosely structured talk that moves fluidly from topic to topic. The teacher experienced difficulty tracking the dialogue, thereby asking questions that interrupted the child's train of thought. Michael's noted, the African American Narrative style is prevalent in and outside the home (Turner 9).

Using Caucasian teaching methods to educate African American students is ineffective; to combat the alarming high dropout rate and school failures. Research has suggested a relationship exists between African American culture and cognitive styles. Education is taught analytically; African American children learn relationally, however, practitioners and educators have elected to dismiss or ignore this inconsistency. Two questions remain outside teaching ,from an analytical perspective. What type educational is conducive to African Americans, and do Blacks process information and see the world differently than Caucasians?

The general view in the African American culture is the distinct pattern of thinking, feeling and acting whch has permeated this group. Blacks perceive and process information differently. African Americans

tend to view entities entirely rather than as isolated parts. Students must be able to visually structure or select, and use relevant information embedded in a larger interrelated context.

African Americans lean toward intuitive rather than deductive and inductive reasoning. When processing information Caucasians respond, after all information is gathered, considered and analyzed. These respondents are considered reflective. On the contrary, individuals who immediately respond in a rash manner are labeled "impulsive". Researchers concur and dissent regarding this theory. However, lack of evidence warrant further investigation (229).

There is a parallel between the African American mother-child relationship; multi-generations network and development of information processing preferences. More emphasis is placed upon interpersonal relationships. This tends to frustrate the child's interest in the object world, and focus on people. Stimuli research supports the hypothesis, African American toddlers prefer mannequin or human-like faces rather than abstract stimuli (224).

Studies also show lower socioeconomic mothers, who were disproportionally Black, touch, hold and smile at infants which strengthen attachment rather than distancing. Researchers hypothesize, distancing is important in progression for cognitive growth. As children move from a stage of cognizably differentiating objects independent of action taken toward then, they are developing their memories and abilities for

representational thougths. More importantly, they are setting the stage for handling abstract concepts.

During the processing stage, African Americans categorize information differently. A high-tech society, bombarded recipients with a barrage of information. To combat the influx, one must discriminate and group data in generalized categories. Some theorists suggest culture is paramount in categorization (Shade 15) data regarding African American encoding patterns is limited to conceptual differentiation evidence. Research on African Americans confirm they perceives objects, people and events differently than other groups. African Americans tend to categorize objects based upon pictorial representations in a relational or holistic manner rather than analytical or detail oriented manner. Blacks also sort word lists according to function while Caucasian's use a taxonomic descriptive approach. This sorting difference is evident in Blacks applying the top-down processing approach in lieu of the bottom-up approach used in teaching. Taking into consideration images portray cultural interpretation, pictorial images should never be expected to convey the same information to all racial groups. Therefore; African American children may be seeing and registering different information.

In a study of four ethnic groups that examine verbal memory concept formulation, numerical memory, and spatial relationships. Results indicate that African Americans were high on verbal task but lowest of the four on space conceptualization tasks. In a study using Black and Caucasian adolescents, subjects were required to verbally and visually

process information. Results showed that African American youths surpassed or equalled Caucasian's on the verbal synthesizing material but performed poorly on visula tasks (235). The Alpha and Beta tests, administered by the U. S. Army which labeled African Americans inferior, contained a substantial number of visual information-processing sub-tests.

Even though African Americans students process information differently than mainstream Caucasian students, let's discuss the environment conducive to African American academic success. The introversion-extraversion paradigm that fit information processing, was conceptualized by Carl Jung who hypothesized, extraversion represents attention to the external world of ideas, concepts or insights. A preference for action, involvement, and being part of the human science. A 1983 study examined the person-vs-object hypothesis, by permitting Black and Caucasian students to photograph school as they perceived it. The results supported the hypothesis. Black students photographed teachers and classmates. Caucasian students depicted objects or physical settings. One may conclude that Black students are more environmentally concerned and extraversed.

A sample was taken of 758 African American Howard University undergraduates and 146 Caucasian from Amherst. The Myers-Briggs type indicator was administrated; results indicated, a large percentage of African Americans fell into the extroverted category (Shade 12). A view of the extraverted-introverted literature indicates; children are externally oriented until twelve or thirteen. After that point, introversion is highly

correlated with academic achievement. On the contrary, successful African American students maintain their orientation toward social interaction and involvement. The African American student prefer affective materials to facilitate learning. Warm and supportive teachers are needed, coupled with a socially interactive environment. This interaction mode provide a conducive atmosphere for academic success.

CONCLUSION

Cognition and culture represent different concepts, the former illustrate the act of knowing; while the latter depict your total way of life which contribute to learning. Research support the claim, low academic achievement is prevalent in the minority community; however researchers and practitioners dissent regarding the causes. Two schools of thought exist regarding low achievement. The cognitive deficit, argue genetic causes, and cultural deprivation theory relate to cultural poverty. Regardless which theory is superceding, indigent children perform poorly in school.

Some researchers assert a relationship between social class and academic achievement. On the contrary, research show middle class Caucasian student's perform better in school than middle-class African Americans. Research has also hypothesizes that most African Americans are first generation middle class, and yet to acquiesce to middle class academic values. Students who are field-independent, which is the modality of teachers, receive higher grades. African American students are field-dependent. Field independent students are analytical, while field dependent students are relational. Field independent learning reflects academic curricula, academic achievement and testing. However, some Blacks are field independent analytical learners.

Enormous amounts of information is visually transferred in our society. Evidence has showed, Blacks are primarily auditory and tactile rather than visual. The prime processing mode for Blacks is kinesthetic, which is substantiated by African-Americans high motoric capability.

Finally, what type of environment is conducive for African-Americans academic achievement? Blacks are extraverted, preferring action and personal involvement. African American students need affective material, warm and supportive teachers free of racism, and a proactive learning environment to experience scholastic success.

APPENDIX A

Skills Information Combination	Orientation to School Requirements
High analytical skills high information	High achievement, high IQ high success in school
High analytical skills low information	High achievement, average IQ anxiety (overacheivers)
High relational skills high information	Low achievement, high IQ behavior problem (under-achievers)
High relational skills low information	Low achievement, low IQ Complete inablilty to relate to school, withdrawal and drop-out

APPENDIX B

(Relation to Material)

Blacks present their views as advocates. They take and show that they care about a specific position. Present day whites relate to their material as spokespersons, not advocates. They believe truth or other merits of an idea are intrusive in the idea itself.

(Certifying Knowledge)

White students consider an idea authoritative when it has been published in a reliable source. Their roll and responsibility lie in presenting the idea and its source accurately and showing its relevance to the topic under consideration. They are not personally responsible for the idea nor have any personal position . On the contrary, Blacks consider it essential to have a personal position on issues and assume full responsibility for arguing their validity. Otherwise, they feel that individuals would not care enough about truth or their own ideas to warrant a struggle. Without such struggle, the truth value of ideas cannot be ascertained.

(Turn-Taking)

Collision between Black and White students in the classroom are also caused by different procedures for turn-taking, or claiming the floor. The white classroom purport, raise your hand, be recognized by the instructor, and take a turn in the order in which you are recognized. An

individual must complete his dialogue within a time frame. Nonetheless, the "democratic" concern represent granting a person a turn without having anything important or relevant to say. The Black rule is to come in when you can. This mean waiting until a person has finished some point, rarely more than two. It would be rude to claim the floor before at least one point has been made. Self-assertion is regulated entirely by one's assessment of what they have to say. If someone's turn fit within the presecribed order but he says nothing worthwhile; others may challenge his assertion: "Why did you come in with that for?"

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